

Applicant: Westhoff et al.
Application No.: 09/395,106

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cont*

44. (Amended) The insert of claim 41 wherein said closed end has an exterior surface with at least a portion of the exterior surface being inclined relative to said longitudinal axis.

Please add new claims 45 and 46, as follows:

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45. (New) The insert of claim 21 wherein said diagonally aligned flange lies in a plane.

46. (New) The insert of claim 22 wherein said flange at said closed end covers said opening to prevent seepage therethrough.

REMARKS

Claims 21-27, 30-36, and 41-46 are currently pending in this application. Claims 30-36 have been allowed by the Examiner. By the foregoing amendment, claims 21, 23-25, 27, 43 and 44 have been amended. New claims 45 and 46 have been added to this application. No new matter has been added to the application by this Amendment.

ALLOWED CLAIMS

The Examiner has allowed claims 30-36 (office action, page 5, paragraph 7).

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CLAIM REJECTIONS - 35 U.S.C. §112

The Examiner rejected claims 21, 23, 27 and 43 under 35 U.S.C. §112, second paragraph, as being indefinite. Applicants respectfully traverse this rejection as applied to the amended claims.

Specifically, the Examiner rejected claim 21 based on the recitations "ends and having" (at line 5) and "with and longitudinal" (at line 13). Applicants have amended claim 21 to change the above recitations to "ends having" and "with the longitudinal," respectively.

¶ The Examiner rejected claim 23 based on the recitation "at said another one" (at line 2). In response, Applicants have amended claim 23 to change the above recitation to "at said open end."

The Examiner rejected claim 27 based on the recitation "ends and having" (at line 8). In response, Applicants have amended claim 27 to change the above recitation to "ends having."

The Examiner rejected claim 43 based on the recitation "surface bring" (at line 2). In response, Applicants have amended claim 43 to change the above recitation to "surface being."

Applicants respectfully request that the Examiner reconsider and withdraw the Section 112 rejection of claims 21, 23, 27 and 43.

CLAIM REJECTIONS - 35 U.S.C. §102

The Examiner has rejected claims 21-26 and 41-44 under 35 U.S.C. §102(b) as being anticipated by Brooks (U.S. Patent No. 1,185,765). Applicants respectfully traverse this rejection as applied to the amended claims.

Referring to Fig. 7 of Applicants' application, one embodiment of the present invention is directed to an insert 60. The insert 60 is designed for insertion into cast material 51 after the cast material 51 has been poured into a mold. Referring to the insert 60 shown on the right-hand side of Fig. 7, the end of the insert 60 which penetrates the cast material 51 is closed and is oriented diagonally relative to a longitudinal axis of the insert 60. A second end of the insert is open so that the insert 60 can initially receive the pin assembly 54 and, thereafter, an interior coupling, such as a ladder step (shown in Fig. 5), after the cast material 51 has cured around the insert 60. It is preferable, but not necessary, that multiple flanges extend generally outwardly in a spaced apart fashion along the outer surface of the insert 60. It is also preferable, that a slot extend into the outer surface of the insert housing from the open end. This slot enables the insert 60 be properly aligned with a projection on the reciprocating pin assembly 54. The reciprocating pin assembly can be used to vibrate the insert 60 while force is exerted thereon to facilitate insertion of the insert 60 into the cast material 51. As also shown in Fig. 6a, it is preferable that a plurality of projections extend generally inwardly inside the insert 60 to facilitate the securing of the interior coupling within

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the insert 60. The interior projections preferably have one surface which is oriented generally perpendicularly to the longitudinal axis of the insert 60 and which faces generally toward the closed end. The inwardly extending projections also preferably have a second surface generally oriented diagonally relative to the longitudinal axis of the insert 60 and which generally faces the open end of the insert 60. The diagonal surfaces facilitate insertion of an arm of the step while the perpendicular surfaces act to prevent removal of the arm.

When forming an anticipation rejection, "[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference" (MPEP § 2131).

Applicants' claim 21 recites, *inter alia*, "an insert . . . comprised of: a hollow . . . housing having an open end and a closed end; . . . an interior surface of said housing . . . being provided with a plurality of projections . . .; each of the plurality projections having a tapering cross-section defined by a first surface diagonally aligned with the longitudinal axis and facing the open end and a second surface perpendicular to said longitudinal axis and facing the closed end." Applicants' claim 41 recites *inter alia*, an insert . . . comprised of: a hollow . . . elongated housing . . . having an open end and a closed end." Applicants' claim 42 recites, *inter alia*, "an insert . . . comprised of: a hollow . . . elongated housing. . . having an open end and a closed end."

Brooks discloses a socket for use in a cast member. Referring to Figs. 1 and 3 of

Brooks, the socket has two opposed **open** ends which define an interior of the socket. The hollow interior is divided into two portions via a partition 4 which allows concrete to enter a portion of the socket while also preventing concrete from contacting the threads located in a second interior portion of the socket. Referring to the top portion of the socket shown in Figs. 1 and 3 (which flares generally outwardly), Brooks explicitly states that the flared portion of the socket forms the "inner end" of the socket. More specifically, Brooks recites, "[t]he flanged inner end of the socket is shown as frusto-conical and of considerable diameter to afford ample anchorage to the socket, thus resisting withdrawal or displacement from the concrete mass." Thus, it is impossible to interpret the Brooks socket as having anything other than two open ends. Brooks utterly fails to disclose a socket having an open end and a closed end. Additionally, Brooks also fails to disclose interior projections within the socket having a defined cross-section.

Brooks fails to disclose Applicants' element recited in claims 21, 41, and 42, of "an insert . . . comprised of: a hollow . . . housing having an open end and a closed end." The Examiner's assertion that the partition 4 forms a closed end is in direct contradiction with the disclosure of brooks. Accordingly, Brooks clearly fails to specifically disclose this element of Applicants' invention. Applicants respectfully submit that Brooks fails to disclose each of the elements of Applicants' invention and that claims 21, 41 and 42 are patentable over Brooks.

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Brooks also fails to disclose Applicants' element, recited in claim 21, of "a plurality of projections . . . each of the plurality of projections having a tapering cross-section defined by a first surface diagonally aligned with the longitudinal axis and facing the open end and a second surface perpendicular to said longitudinal axis and facing the closed end." Figs. 1 and 3 of Brooks do not show a cross-section having any surface that is perpendicular to a longitudinal cross section of the socket. Additionally, the specification of Brooks is devoid of any description of the cross-section of the threads of the socket. Accordingly, Brooks fails to specifically disclose the above element. Applicants respectfully submit that Brooks fails to disclose multiple elements of Applicants' claim 21 and that claim 21 is further patentable over Brooks.

Claims 22-26 depend, directly or indirectly from claim 21 and, accordingly, are also patentable over Brooks for each of the reasons recited in the above remarks relating to claim 21. Claims 43 and 44 depend directly from claim 41 and, accordingly, are also patentable over Brooks for the reasons stated above in connection with claim 41.

Applicants respectfully request that the Examiner reconsider and withdraw the Section 102 rejection of claims 21-26 and 41-44.

CLAIM REJECTIONS - 35 U.S.C. §103

The Examiner has rejected claim 27 under 35 U.S.C. §103(a) as being unpatentable over Ditcher (U.S. Patent No. 3,974,615), in view of Peacock (U.S. Patent No. 4,100,997)

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and Marino (U.S. Patent No. 3,200,903). Applicants respectfully traverse this rejection as applied to the amended claim.

To establish a *prima facie* case of obviousness, "the prior art reference (or references when combined) must teach or suggest all the claim limitations" (MPEP § 2142).

Applicants' claim 27 recites, *inter alia*, "[i]n combination, an insert and a reciprocatable pin assembly . . . comprising: . . . the reciprocatable pin assembly being adapted to detachably engage the insert, the reciprocatable pin assembly, comprising: a second cylindrical-shaped portion . . . a projection being arranged on . . . the cylindrically shaped second portion . . . said insert has at least one slot . . . extending inwardly from said open end for receiving said projection to align said insert on the pin assembly."

Ditcher is directed to an apparatus for forming steps in manholes. Ditcher does not disclose, teach or even remotely suggest the use of a reciprocating pin assembly to insert the plastic core 14 into the mold. There would be no motivation to use a reciprocating pin assembly to insert the plastic core 14 as the Ditcher plastic cores 14 are meant to be inserted in the mold prior to the pouring of concrete in the mold. As specifically stated in Ditcher, "once the plastic core members have been inserted in the manner set forth above, the concrete may be poured into the mold section" (Specification, column 4, lines 43-45) (emphasis added).

The deficiencies of the teachings of Ditcher are not remedied by Marino which also

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fails to disclose the use of any reciprocating pin assembly whatsoever. The disclosure of Marino does not detail how the sockets 6 and 7 are embedded within concrete.

The above deficiencies of Ditcher and Marino are not remedied by Peacock which also fails to disclose any reciprocating pin assembly. Peacock is directed to a one-piece ladder step having deformable projections. Peacock fails to disclose any insert whatsoever and requires a hammer to pound the step into a hole that is pre-drilled into concrete. The hole that is drilled is sized so that the flexible projections on the step are deformed as the step is inserted into the concrete. There is no disclosure, teaching or suggestion of using a reciprocating pin assembly whatsoever. Additionally, there is no disclosure, teaching or suggestion of using an insert.

Ditcher, Peacock and Marino fail to disclose Applicants' element, recited in claim 27 of, a "reciprocating pin assembly." Accordingly, Applicants respectfully submit that claim 27 is patentable over the cited combination.

Ditcher, Peacock and Marino also fail to disclose Applicants' element, recited in claim 27, of a reciprocatable pin assembly having a projection that is detachably engageable with a slot in an insert to align the insert on the pin assembly. Accordingly, Applicants respectfully submit that claim 27 is further patentable over the cited combination.

Applicants respectfully request that the Examiner reconsider and withdraw the Section 103 rejection of claim 27.

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NEW CLAIM

New claims 45 and 46 have been added to this application. Applicants respectfully submit that since new claim 45 depends from claim 21 and 46 depends indirectly on independent claim 21, that new claims 45 and 46 are patentable for each of the reasons discussed in the above remarks relating to claim 21. In addition, none of the prior art teaches an insert having a flange for preventing seepage (claim 46) and none of the prior art teaches a flange lying in a plane (claim 45). The flange in Brooks is a curved, conical flange. Accordingly, claims 45 and 46 further patentably distinguish over the prior art of record.

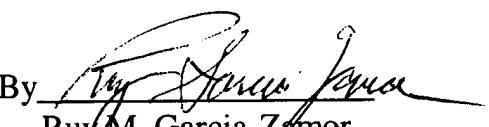
CONCLUSION

In view of the foregoing Amendment and Remarks, Applicants respectfully submit that the present application, including claims 21-27, 30-36 and 41-46, is in condition for allowance and a notice to that effect is respectfully solicited.

Respectfully submitted,

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**37 CFR §1.121(b)(1)(iii) and (c)(1)(ii) SPECIFICATION
AND CLAIM AMENDMENTS- MARKED UP VERSION**

21. (Thrice Amended) An insert adapted to be embedded in a cast member for force-fittingly receiving a leg portion of a step, said insert being comprised of:

 a hollow, substantially cylindrical-shaped elongated housing having an open end and a closed end;

 one of [said ends and] the open end and the closed end having a flange lying in a plane diagonally aligned with a longitudinal axis of said housing;

 another one of [said ends] the open end and the closed end having a flange lying in a plane perpendicular to said longitudinal axis;

 an interior surface of said housing having a portion thereof being provided with a plurality of [annular] projections arranged at spaced intervals and extending radially inward;

 each of the plurality of projections [projection] having a tapering cross-section defined by a first surface diagonally aligned with [and] the longitudinal axis and facing the open end and a second surface perpendicular to said longitudinal axis and facing the closed end.

23. (Amended) The insert of claim 22 wherein said flange at said [another one of said ends] open end covers said opening to prevent seepage therethrough.

24. (Amended) The insert of claim 21 wherein said housing is provided with a second plurality of [annular] flanges [integral with and] extending radially outwardly from said housing and spaced along the housing for retaining the insert in place when embedded in a cast member.

25. (Thrice Amended) The insert of claim 21 wherein said closed end has a [an annular] flange [integral with said housing and] extending radially outward therefrom to seal an opening in a mold core preparatory to insertion of the insert into a cast material.

27. (Amended) In combination, an insert and a reciprocatable pin assembly for receiving said insert for insertion into a casting material and removal from the insert after insertion, the combination [said insert] comprising:

the insert, comprising:

a hollow, substantially cylindrical-shaped, elongated housing having an open end and a closed end;

one of [said ends and] the open end and the closed end having a flange lying in a plane diagonally aligned with a longitudinal axis of said housing

another one of [said ends] the open end and the closed end having a flange lying in a plane perpendicular to said longitudinal axis;

said [pin assembly having] insert having a first cylindrical-shaped portion of a first diameter;

the reciprocatable pin assembly being adapted to detachably engage the insert, the reciprocatable pin assembly, comprising:

a second cylindrical-shaped portion of a second diameter less than said first diameter, one end of said second portion being [integrally joined] detachably engaged to [one] the open end of said [first portion] insert [, forming] to form an annular [ledge] shoulder at the juncture thereof[;], said [ledge] shoulder lying in a plane perpendicular to a longitudinal axis of said pin assembly[;]said [pin assembly] cylindrical-shaped second portion being adapted for insertion [inserted] into said insert through said open end to cause the [with said] open end [resting on said ledge] to, in combination with the cylindrical-shaped second portion, define the shoulder;

[said pin assembly having an integral] a projection being arranged on [said ledge] the one end of the cylindrically-shaped second portion and extending [along said second portion toward a free end thereof] generally outwardly therefrom;

wherein said insert [having] has at least one slot in the first cylindrical-shaped portion extending inwardly from said open end for receiving said projection [for aligning] to align said insert on said pin assembly.

43. (Amended) The insert of claim 41 further comprising:

said outer surface [bring] being provided with a plurality of annular flanges integral with and extending radially outward from said housing and spaced along the housing.

44. (Amended) The insert of claim 41 wherein said closed end has an exterior surface with at least a portion of [its] the exterior surface being inclined relative to said longitudinal axis.